Work Order ID 99533

April-11-13 9:05:46 AM

99533

Item ID: D117-762-011 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID:

Item Name: Skidtube **Stop** *NS2*

Start Date: 4/11/13 **Start Qty:** 1.00 *1*

Required Date: 4/25/13 **Req'd Qty:** 1.00 *1*

Reference:

Cust Item ID:

Customer:

Run Start *NR1*

Stop *NR2*

Approvals: **Process Plan:** MLS **Date:** 13-04-11 **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	**Revision Nbr**								
DSI9435	Rev A								
IIN-D117-762	Rev A SP								
100		0.00							
100	DOCUMENT CONTROL								
DC	**Memo**	0.00							
Document Control	Photocopy bluefile & type labels per PPP D117-762-011				CHG002				
110	Pick Kit	0.00							
110									
Packaging	**Memo**	0.00							
Packaging									

DAS 06 8-88 13/4/29

14 SP 13-7-25

B99535

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐
- ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

Work Order ID 99533

April-11-13 9:05:46 AM

99533

Item ID: D117-762-011 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: Skidtube

Start Date: 4/11/13 **Start Qty:** 1.00 *1* **Cust Item ID:**

Required Date: 4/25/13 **Req'd Qty:** 1.00 *1* **Customer:**

Reference:

Approvals: **Process Plan:** **Date:** **Tooling:** **Date:** **Run Start** *NR1*

QC: **Date:** **SPC (Y/N):** **Date:** **Stop** *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC4- 100% Inspect kits for completeness	0.00	DAS 06 9-89		13/7/29				
120									
QC	**Memo**	0.00							
Quality Control									
130		0.00							
130	Packaging					13/7/29			
Packaging	**Memo**	0.00							
Packaging	Identify and pack for shipping as per PPP D117-762-011 Location: 081 PPP Rev:								
140	QC21- Final Inspection - Work Order Release	0.00							
140						MCS 13-07-31			
QC	**Memo**	0.00							
Quality Control									

MF 13-7-31

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐
- ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

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- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
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- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

Picklist Print

April-11-13 9:05:54 AM

Work Order ID: 99533

99533

Parent Item: D117-762-011

D117-762-011

Parent Item Name: Skidtube

Start Date: 4/11/13 **Required Date:** 4/25/13

Start Qty: 1.00 **Required Qty:** 1.00

Comments: IPP Rev:A07.06.11New Issue EC
IPP Rev:B 08-02-22 change to revA DD verified by:ec
IPP Rev C 08.12.19 incorporated DSI9435 EC verified by:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D117-762-041		Manufactured	No			110	Each	0.0000	1	1			
D117-762-041									**		99535		
Replacement Skidtube													
AN3C4A		Purchased	No			110	Each	1,241.000	8	8			
AN3C4A									**		m1261058p		
BOLT													

Location	Loc Qty	Loc Code
FG	20	
122814	20	
ST512	1221	
123759	1212	
124221	7	
124805	2	

AN960C10L	NAS1149C0332R	Purchased	No			110	Each	0.0000	8	8			
AN960C10L									**		m1256548p		
washer													
D3512-1		Manufactured	No			110	Each	14.0000	2	2			
D3512-1									**		3p 13-7-25		
Wearplate													

Location	Loc Qty	Loc Code
FG	2	
89154	2	
ST500	12	
89154	4	
91293	8	

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
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- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
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- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐
- ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

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- ☐ Contamination
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- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
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- ☐ Mislabeled
- ☐ Misread
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- ☐ Wrong Stock Pulled
- ☐ Other

Picklist Print

April-11-13 9:05:54 AM

Work Order ID: 99533

99533

Parent Item: D117-762-011

D117-762-011

Parent Item Name: Skidtube

Start Date: 4/11/13 **Required Date:** 4/25/13

Start Qty: 1.00 **Required Qty:** 1.00

AN6-52A — Purchased — No — 110 — Each — 15.0000

AN6-52A

Bolt

Location	Loc Qty	Loc Code
ST341	15	
118451	15	

MS21042L6 — Purchased — No — 110 — Each — 258.0000

MS21042L6

Nut

Location	Loc Qty	Loc Code
ST314	258	
117677	25	
118927	48	
120308	2	
122441	19	
123248	164	

D3864-1 — Manufactured — No — 110 — Each — 4.0000

D3864-1

Bushing

Location	Loc Qty	Loc Code
ST068	4	
78442	4	

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
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- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐
- ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

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- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

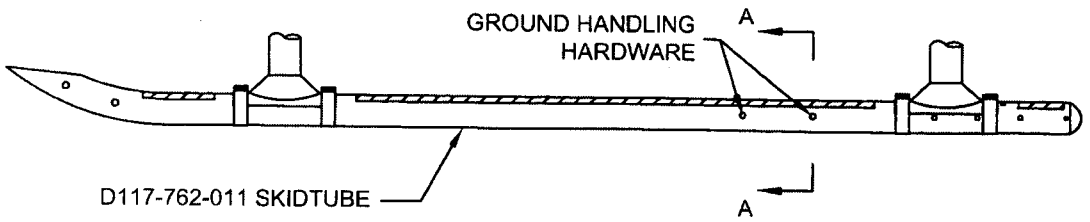
- ☐ Bend
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- ☐ Countersink
- ☐ Cut Too Short
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- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

DART SERVICE INSTRUCTION

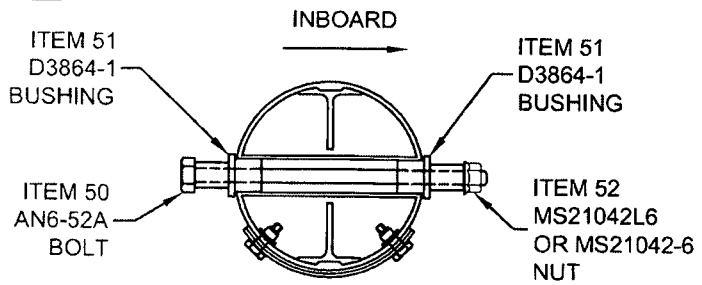
TO AMEND INSTALLATION INSTRUCTIONS IIN-D117-762 REV. A AND
INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D117-762 REV. 0
REF FAA STC: SR01853SE
REF TC LETTER OF ACCEPTANCE: RDIMS-4374899
REF EASA STC: EASA.IM.R.S.01499

ON D117-762-011 SKIDTUBES AT CHG 002, THE GROUND HANDLING HARDWARE HAS BEEN REPLACED WITH AN6-52A BOLT (1), D3864-1 BUSHING (2), AND MS21042L6 NUT (1) AS SHOWN BELOW. TORQUE TO 95-110 IN-LBS (10.7-12.4 N-M). AMEND PARTS LIST IN SECTIONS 5.1 OF INSTALLATION INSTRUCTIONS IIN-D117-762 REV. A AND SECTION 32.8 OF THE INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D117-762 REV 0 AS SHOWN ON PAGE 2 OF THIS DOCUMENT.

THERE IS NEGLIGIBLE WEIGHT CHANGE ASSOCIATED WITH THIS MODIFICATION.

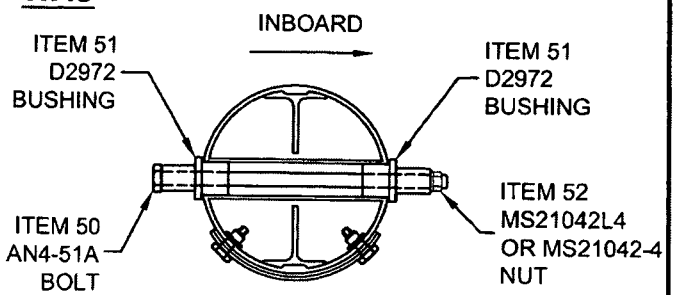


IS



SECTION A-A
2 PL PER SKIDTUBE

WAS



SECTION A-A
2 PL PER SKIDTUBE

A	NEW ISSUE	PH	08.12.04
REV.	DESCRIPTION	BY	DATE

DESIGN	PH	**DART AEROSPACE USA, INC** PORT HADLOCK, WA	
DRAWN	PH		
CHECKED		DRAWING NO. DSI 9435	REV. A SHEET 1 OF 2
MFG. APPR.	N/A		
APPROVED		TITLE GROUND HANDLING HARDWARE CHG	SCALE NTS
DE APPR.			
DATE 08.12.04			

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99533 MCS
13-04-11

5.1 **D117-762-011 SKIDTUBE PARTS LIST (IIN-D117-762)**
32.8 **D117-762-011 SKIDTUBE PARTS LIST (ICA-D117-762)**

ITEM	Qty -011	Qty -041	PART NUMBER	DESCRIPTION
	X		D117-762-011	SKIDTUBE INSTALLATION
	1	X	D117-762-041	REPLACEMENT SKIDTUBE

IS:

50	2		AN6-52A	BOLT
51	4		D3864-1	BUSHING
52	2		MS21042L6	NUT (OR MS21042-6)

WAS:

50	2		AN4-51A	BOLT
51	4		D2972	BUSHING
52	2		MS21042L4	NUT (OR MS21042-4)

TO UPGRADE A D117-762-011 SKIDTUBE FROM CHG 001 TO CHG 002, THE FOLLOWING KIT CAN BE OBTAINED FROM DART:

Qty -041	PART NUMBER	DESCRIPTION
X	DSI 9435-011	GROUND HANDLING HARDWARE CHANGE
2	AN6-52A	BOLT
4	D3864-1	BUSHING
2	MS21042L6	NUT (OR MS21042-6)

DESIGN	PH	**DART AEROSPACE USA, INC**	
DRAWN	PH	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9435	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		GROUND HANDLING HARDWARE CHG	NTS
DATE	08.12.04		

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Work Order ID 99533

April-11-13 9:05:46 AM

99533

Item ID: D117-762-011

Revision ID:

Item Name: Skidtube

Start Date: 4/11/13 **Start Qty:** 1.00 *1*

Required Date: 4/25/13 **Req'd Qty:** 1.00 *1*

Reference:

Accept *N900040100*

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

Approvals: **Process Plan:** MCJ **Date:** 13-04-11 **Tooling:** **Date:**

QC: **Date:** **SPC (Y/N):** **Date:**

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp

Draw Nbr	Revision Nbr
DSI9435	Rev A
IIN-D117-762	Rev A

✓ SP

100 0.00

100

DC

Document Control

DOCUMENT CONTROL

Memo 0.00

Photocopy bluefile & type labels per PPP D117-762-011 CHG002

MCJ 13-07-25

110 Pick Kit 0.00

110

Packaging

Packaging

Memo 0.00